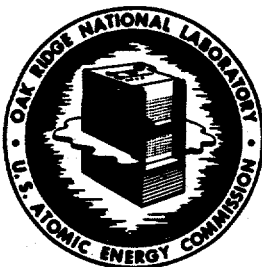


OAK RIDGE NATIONAL LABORATORY
Operating By
CARBIDE AND CARBON CHEMICALS COMPANY

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CENTRAL FILES NUMBER

54-4-86

DATE: April 13, 1954

SUBJECT: CONFERENCE NOTES, OFF GAS DISPOSAL,
AREA J. OAK RIDGE CHEMICAL PROCESSING PLANT

TO: E. L. Nicholson

FROM: J. L. Dodson

PURPOSE: Discussion of stack operations

LOCATION AND TIME: Bldg. 4500 Rm. 238 - 1:00 P.M. April 13, 1954

This document consists of 2 pages.

Copy 11 of 20 copies. Series A.

CLASSIFICATION CANCELLED

DATE OCT 9 1957

Edgar J. Murphy

CO-ORDINATING ORGANIZATION DIRECTOR
OAK RIDGE NATIONAL LABORATORY

APPROVED BY AEC 9-10-57

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TO: E. L. Nicholson
FROM: J. L. Dodson
SUBJECT: CONFERENCE NOTES, OFF GAS DISPOSAL, AREA J. OAK RIDGE CHEMICAL
PROCESSING PLANT

Present at this meeting were:

R. Meyers, USWB
W. G. Stockdale
W. A. Nixon

The proposed method of DOG disposal was discussed with Mr. Meyers to obtain information on maximum expected ground contamination. The basis of stack operation was specified as the disposal of 1850 curies/day with 30,000 SCFM gas in the stack.

From curves of stack operation prepared by Mr. Meyers, the maximum ground concentration from stack 3020 operating with 30,000 SCFM air and a unit emission of 1 curie/sec., will be 46 microcuries/cubic meter. Under actual stack operation, the maximum ground concentration can be calculated as follows:


Emission rate - 1850 curies/Day = 0.0214 curies/sec.
Max. conc. at 1 curies/sec. = $46 \mu\text{c}/\text{m}^3 = 46 \times 10^6 \mu\text{c}/\text{cc}$

Ground concentration at operating condition

$0.0214 \times 46 \times 10^6 = 0.98 \times 10^6 \mu\text{c}/\text{cc}$

Allowable ground concentration is $1 \times 10^6 \mu\text{c}/\text{cc}$, therefore stack 3020 is satisfactory for this operation.

If increased activity must be disposed through stack 3020, the air flow through the stack can be increased by installation of additional blowers. The maximum flow which could be used in this stack is about 150,000 SCFM.


J. L. Dodson
per W. A. Nixon

WN/bt